# Training Content

| Module | Program Content | Duration |
|--------|-----------------|----------|
| Day-1 | **Introduction to Data Science**<br>**Applications of Data Science**<br>**Data Science Methodology**<br>- Business Understanding<br>- Analytical Approach<br>- Data Requirements<br>- Data Collection<br>- Data Understanding<br>- Data Preparation<br>- Data Modelling<br>- Model Evaluation<br>**Introduction to IBM and Watson Services**<br>- Introduction to IBM Cloud<br>- Introduction to AI in IBM Cloud<br>- Watson Services<br>**Data Wrangling**<br>- Acquire the dataset<br>- Import all the crucial libraries<br>- Import the dataset<br>- Identifying and handling the missing values<br>- Encoding the categorical data<br>- Handling the Outliers<br>- Handling Inconsistent Data<br>- Dimensionality Reduction Using PCA<br>- Splitting the dataset<br>- Feature scaling<br>-<br>Lab:1. Set-up IBM Watson Studio<br>     2. Data Pre-processing with Titanic Dataset | 2.5 Hrs. |
| Day-2 | **Machine Learning with Python**<br><br>**Regression Algorithms:**<br>- Linear Regression<br>- MultilinearRegression<br>**Classification Algorithms**<br>- Logistic Regression Algorithm<br>- Random Forest Algorithm<br>- Decision Tree Algorithm<br>- K-Nearest Neighbours<br><br>Lab: Model Development with Different Algorithms | 2.5 Hrs. |
| Day-3 | **IBM Cognos Analytics**<br>- Introduction to Cognos Analytics<br>- Business Intelligence<br>- Features,Components and types of Cognos | 2.5 Hrs. |

| | **Buiding Dashboard with Cognos**<br>- Introduction to Dashboard<br>- Different tyoes of visualization<br>- Different Operations in IBM Cognos<br><br>Lab:Covid-19 Vaccination Dashboard using IBM Cognos Analytics | |
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| Day-4 | **Machine Learning Model with IBM Using Auto AI**<br>- Building Machine Learning Model Using Auto AI<br>- Introduction to IBM Node-red<br>- Integrating Machine Learning Model to IBM Node-red<br><br>Lab: Insurance Premium Prediction | 2.5 Hrs. |
| Day-5 | **Predictive Analytics and SPSS Modeler**<br>- Accessing data<br>- Manipulating data<br>- Analyzing data<br>- Classifier Model using SPSS Modeller<br>- Regression Model using SPSS Modeller<br>-<br>Lab: Customer Churn Prediction Modeling | 2.5 Hrs. |

## Prerequisites:

1. Laptops / Computer with Minimum 8GBRAM
2. IBM CloudAccount
3. Good InternetFacility
4. Knowledge on fundamentals of python programming